

Date: Monday, 7/9/2007 11:47:02 AM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : 206/OH-58 SADDLE, INBOARD, LEFT SIDE ~~UNDER~~
 Job Number : 33361 ~~REVIEW~~ CB
 Estimate Number : 10836 07.07.09
 P.O. Number : N/A Part Number : D29391
 This Issue : 7/9/2007 S.O. No. : N/A Drawing Number : D2939 REV C
 Prsht Rev. : NC Project Number : N/A
 First Issue : N/A Type : MACHINED PARTS Drawing Revision : C
 Previous Run : 32384 Material : N/A
 Due Date : 7/30/2007 Qty: 20 Um: Each
 Written By :
 Checked & Approved By : 07.07.09
 Comment : Est: B 00.06.26 New DWG rev (mpp 2069) EC
 Est Rev:C As per Rev C 07-03-19 JLM

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 D6101001 7075-T7351 2X6X6.25



Comment: Qty.: 1.0000 Each(s)/Unit Total : 20.0000 Each(s)
 Issue material from stock: 7075-T7351 QQ-A-250/12
 Cut Size 2.0 x 6.25 X 6.00
 Grain Along Long 6.00 Length
 Batch No: B33679

ml/J.L 07/08/25 (20)

2.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1
 Program part number and batch number.
 1-Inspect part number and batch number are programmed correctly.
 2-Machine Step No 1 of Folio and visually inspect as per dwg D2939 & attached Dimension Sheet
 3-Machine Step No 2 of Folio and visually inspect as per dwg D2939 & attached Dimension Sheet
 4-Machine Step No 3 of Folio and visually inspect as per dwg D2939 & attached Dimension Sheet
 5-Deburr

ml/J.L 07/08/25 (20)

3.0 MILLING CONV. CONVENTIONAL MILLING MACHINE



Comment: CONVENTIONAL MILLING MACHINE
 Machine Keyway and inspect per attached dimension sheet

ml/J.L 07/08/25 (20)

4.0 QC1 INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

ml/J.L 07/08/25 (20)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: 12 Date: 07/08/30
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

ate & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 206/OH-58 SADDLE, INBOARD, LEFT SIDE -UNDER-

REVIEW

CB
07.07.09

Job Number: 33361

Part Number: D29391

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

J.F. 07/08/27 (20)

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

WJ 07-08-27 (20)

7.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

M105068

M-K 07/08/28 (20X)

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

PC 7/8/25 (20)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

57 430

PC 7/8/25 (20)

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

PC 7/08/30 (20)

Job Completion



W 07-08-30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	33361
Description: 206 Saddle, Inboard, Left side	Part Number:	D2939-1
Inspection Dwg: D2939 Rev. C		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2939 Rev. C and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	1	2	3	4		
A	0.100	0.140		.120	.120	.120	.120		
B	0.100	0.140		.120	.120	.120	.120		
C	0.100	0.140		.121	.121	.120	.121		
D	0.210	0.230		.222	.222	.221	.220		
E	1.245	1.255		1.250	1.250	1.250	1.250		
F	1.245	1.255		1.250	1.250	1.250	1.250		
G	2.495	2.505		2.500	2.506	2.506	2.500		
H	0.510	0.515		0.571	0.571	0.570	0.570		
I	1.572	1.582		1.577	1.577	1.577	1.577		
J	2.495	2.505		2.500	2.500	2.500	2.500		
K	0.257	0.262		.258	.258	.258	.258		
L	0.312	0.317		.314	.314	.314	.314		
M	0.235	0.240		0.238	0.238	0.238	0.238		
N	0.100	0.140		.122	.122	.121	.121		
O	0.540	0.560		.551	.550	.551	.551		
P	0.490	0.510		.502	.501	.501	.502		
Q	3.715	3.725		3.726	3.720	3.726	3.720		
R	2.720	2.760		2.740	2.740	2.740	2.740		
S	0.240	0.270		.250	.250	.249	.250		
T	0.100	0.180		.140	.140	.140	.140		
U	1.625	1.635		1.630	1.630	1.630	1.630		
V	1.362	1.372		1.367	1.367	1.367	1.367		
W	0.316	0.321		.318	.318	.318	.318		
X	1.250	1.270		1.263	1.263	1.263	1.262		
Y	1.565	1.585	DT8695 A/B	1.576	1.576	1.575	1.574		
Z	0.178	0.198		.188	.188	.188	.188		
AA									
AB									
AC									
AD									
AE									
AF									
AG									
AH									
Accept/Reject									

Measured by:	SL
Date:	07/08/24

Audited by:	J.F.
Date:	07/08/26

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Reformat; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B	KJ/RF	
C	07.03.21	Revised per drawing revision C	KJ/JLM	

DART AEROSPACE LTD	Work Order: 33361
Description: 206 Saddle, Inboard, Left side	Part Number: D2939-1
Inspection Dwg: D2939 Rev. C	Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2939 Rev. C and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	1	2	3	4		
A	0.100	0.140		0.121	0.122	0.122	0.123		
B	0.100	0.140		0.121	0.124	0.123	0.123		
C	0.100	0.140		0.120	0.118	0.121	0.121		
D	0.210	0.230		0.220	0.220	0.220	0.221		
E	1.245	1.255		1.250	1.250	1.249	1.250		
F	1.245	1.255		1.250	1.250	1.250	1.250		
G	2.495	2.505		2.500	2.500	2.500	2.506		
H	0.510	0.515		0.510	0.510	0.510	0.510		
I	1.572	1.582		1.577	1.577	1.577	1.576		
J	2.495	2.505		2.500	2.499	2.500	2.499		
K	0.257	0.262		0.258	0.258	0.258	0.258		
L	0.312	0.317		0.314	0.314	0.314	0.314		
M	0.235	0.240		0.238	0.238	0.238	0.238		
N	0.100	0.140		0.122	0.122	0.122	0.122		
O	0.540	0.560		0.551	0.551	0.550	0.551		
P	0.490	0.510		0.502	0.503	0.503	0.503		
Q	3.715	3.725		3.720	3.716	3.718	3.719		
R	2.720	2.760		2.740	2.740	2.740	2.741		
S	0.240	0.270		0.251	0.250	0.250	0.250		
T	0.100	0.180		0.140	0.140	0.140	0.146		
U	1.625	1.635		1.630	1.629	1.629	1.629		
V	1.362	1.372		1.367	1.366	1.367	1.367		
W	0.316	0.321		0.318	0.318	0.319	0.320		
X	1.250	1.270		1.260	1.260	1.260	1.260		
Y	1.565	1.585	DT8695 A/B	1.576	1.577	1.577	1.574		
Z	0.178	0.198		0.188	0.188	0.188	0.188		
AA									
AB									
AC									
AD									
AE									
AF									
AG									
AH									
Accept/Reject									

Measured by:	IL / [Signature]
Date:	07/08/25

Audited by:	J.F.
Date:	07/08/26

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Reformat; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B	KJ/RF	
C	07.03.21	Revised per drawing revision C	KJ/JLM [Signature]	[Signature]

DART AEROSPACE LTD	Work Order:	33361
Description: 206 Saddle, Inboard, Left side	Part Number:	D2939-1
Inspection Dwg: D2939 Rev. C		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2939 Rev. C and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.100	0.140		0.123	0.123	0.123	0.123		
B	0.100	0.140		0.123	0.123	0.123	0.123		
C	0.100	0.140		0.121	0.121	0.122	0.120		
D	0.210	0.230		0.221	0.223	0.223	0.223		
E	1.245	1.255		1.250	1.250	1.250	1.250		
F	1.245	1.255		1.250	1.250	1.250	1.256		
G	2.495	2.505		2.499	2.500	2.500	2.506		
H	0.510	0.515		0.510	0.510	0.516	0.510		
I	1.572	1.582		1.577	1.577	1.576	1.576		
J	2.495	2.505		2.500	2.499	2.499	2.499		
K	0.257	0.262		0.258	0.259	0.258	0.258		
L	0.312	0.317		0.314	0.314	0.314	0.314		
M	0.235	0.240		0.238	0.238	0.238	0.238		
N	0.100	0.140		0.122	0.124	0.124	0.124		
O	0.540	0.560		0.551	0.551	0.551	0.551		
P	0.490	0.510		0.503	0.503	0.504	0.502		
Q	3.715	3.725		3.719	3.719	3.719	3.719		
R	2.720	2.760		2.742	2.741	2.741	2.741		
S	0.240	0.270		0.251	0.250	0.252	0.252		
T	0.100	0.180		0.142	0.142	0.142	0.142		
U	1.625	1.635		1.629	1.629	1.628	1.628		
V	1.362	1.372		1.367	1.368	1.366	1.366		
W	0.316	0.321		0.326	0.320	0.320	0.326		
X	1.250	1.270		1.260	1.262	1.261	1.261		
Y	1.565	1.585	DT8695 A/B	1.573	1.575	1.574	1.574		
Z	0.178	0.198		0.188	0.188	0.188	0.188		
AA									
AB									
AC									
AD									
AE									
AF									
AG									
AH									
Accept/Reject									

Measured by:	<i>[Signature]</i>
Date:	07/08/25

Audited by:	<i>J.F.</i>
Date:	07/08/27

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Reformat; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B	KJ/RF	
C	07.03.21	Revised per drawing revision C	KJ/JLM	<i>[Signature]</i>

DART AEROSPACE LTD		Work Order: 33361
Description: 206 Saddle, Inboard, Left side		Part Number: D2939-1
Inspection Dwg: D2939 Rev. C		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2939 Rev. C and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	1	2	3	4		
A	0.100	0.140		0.123	0.123	0.123	0.123		
B	0.100	0.140		0.123	0.123	0.123	0.123		
C	0.100	0.140		0.122	0.120	0.120	0.121		
D	0.210	0.230		0.223	0.223	0.223	0.223		
E	1.245	1.255		1.250	1.250	1.249	1.250		
F	1.245	1.255		1.250	1.250	1.249	1.250		
G	2.495	2.505		2.500	2.500	2.500	2.500		
H	0.510	0.515		0.510	0.510	0.510	0.510		
I	1.572	1.582		1.577	1.577	1.576	1.576		
J	2.495	2.505		2.499	2.500	2.499	2.500		
K	0.257	0.262		0.258	0.258	0.258	0.259		
L	0.312	0.317		0.314	0.314	0.314	0.314		
M	0.235	0.240		0.238	0.238	0.238	0.238		
N	0.100	0.140		0.124	0.124	0.124	0.124		
O	0.540	0.560		0.551	0.551	0.551	0.551		
P	0.490	0.510		0.503	0.504	0.504	0.504		
Q	3.715	3.725		3.718	3.718	3.718	3.718		
R	2.720	2.760		2.746	2.746	2.740	2.741		
S	0.240	0.270		0.251	0.251	0.249	0.250		
T	0.100	0.180		0.142	0.142	0.143	0.143		
U	1.625	1.635		1.628	1.628	1.628	1.628		
V	1.362	1.372		1.366	1.366	1.366	1.366		
W	0.316	0.321		0.320	0.320	0.320	0.320		
X	1.250	1.270		1.261	1.262	1.262	1.262		
Y	1.565	1.585	DT8695 A/B	1.575	1.574	1.576	1.575		
Z	0.178	0.198		0.188	0.188	0.188	0.188		
AA									
AB									
AC									
AD									
AE									
AF									
AG									
AH									
Accept/Reject									

Measured by: <i>SMF</i>	Audited by: <i>J.F.</i>
Date: 07/08/25	Date: 07/08/27

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Reformat; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B	KJ/RF	
C	07.03.21	Revised per drawing revision C	KJ/JLM	<i>[Signature]</i>

DART AEROSPACE LTD	Work Order:	33361
Description: 206 Saddle, Inboard, Left side	Part Number:	D2939-1
Inspection Dwg: D2939 Rev. C		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2939 Rev. C and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.100	0.140		0.123	0.123	0.123	0.123		
B	0.100	0.140		0.123	0.123	0.123	0.123		
C	0.100	0.140		0.122	0.121	0.120	0.120		
D	0.210	0.230		0.223	0.223	0.223	0.222		
E	1.245	1.255		1.250	1.250	1.249	1.250		
F	1.245	1.255		1.250	1.250	1.249	1.250		
G	2.495	2.505		2.500	2.500	2.500	2.500		
H	0.510	0.515		0.510	0.510	0.510	0.510		
I	1.572	1.582		1.577	1.576	1.576	1.576		
J	2.495	2.505		2.500	2.500	2.500	2.499		
K	0.257	0.262		0.258	0.258	0.258	0.258		
L	0.312	0.317		0.314	0.314	0.314	0.314		
M	0.235	0.240		0.238	0.238	0.238	0.238		
N	0.100	0.140		0.124	0.124	0.124	0.124		
O	0.540	0.560		0.551	0.551	0.551	0.551		
P	0.490	0.510		0.504	0.504	0.504	0.504		
Q	3.715	3.725		3.718	3.718	3.718	3.718		
R	2.720	2.760		2.741	2.740	2.740	2.741		
S	0.240	0.270		0.251	0.251	0.249	0.251		
T	0.100	0.180		0.142	0.145	0.144	0.144		
U	1.625	1.635		1.628	1.628	1.628	1.629		
V	1.362	1.372		1.367	1.366	1.366	1.367		
W	0.316	0.321		0.320	0.320	0.320	0.320		
X	1.250	1.270		1.261	1.262	1.262	1.262		
Y	1.565	1.585	DT8695 A/B	1.574	1.573	1.574	1.574		
Z	0.178	0.198		0.188	0.188	0.188	0.188		
AA									
AB									
AC									
AD									
AE									
AF									
AG									
AH									
Accept/Reject									

Measured by:	cm
Date:	07/08/25

Audited by:	J.F.
Date:	07/08/27

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Reformat; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B	KJ/RF	
C	07.03.21	Revised per drawing revision C	KJ/JLM	

DART AEROSPACE LTD	Work Order: 33361
Description: 206 Saddle, Inboard, Left side	Part Number: D2939-1
Inspection Dwg: D2939 Rev. C	Page 1 of 1

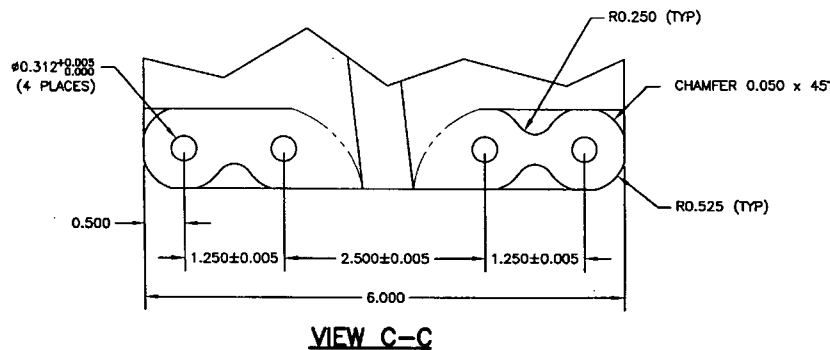
Inspect dimensions highlighted on inspection sheet drawing D2939 Rev. C and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.100	0.140							
B	0.100	0.140							
C	0.100	0.140							
D	0.210	0.230							
E	1.245	1.255							
F	1.245	1.255							
G	2.495	2.505							
H	0.510	0.515							
I	1.572	1.582							
J	2.495	2.505							
K	0.257	0.262							
L	0.312	0.317							
M	0.235	0.240							
N	0.100	0.140							
O	0.540	0.560							
P	0.490	0.510							
Q	3.715	3.725							
R	2.720	2.760							
S	0.240	0.270							
T	0.100	0.180							
U	1.625	1.635							
V	1.362	1.372							
W	0.316	0.321							
X	1.250	1.270							
Y	1.565	1.585	DT8695 A/B						
Z	0.178	0.198							
AA									
AB									
AC									
AD									
AE									
AF									
AG									
AH									
Accept/Reject									

Measured by:	
Date:	

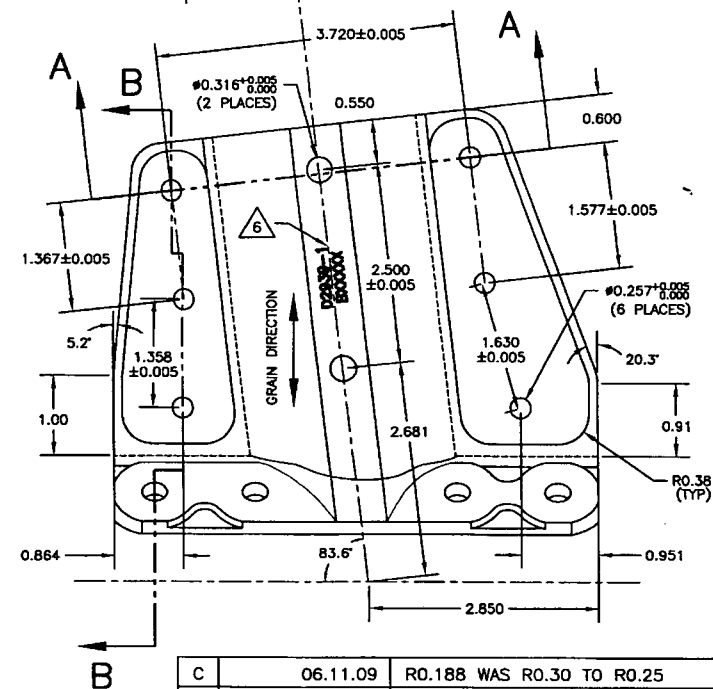
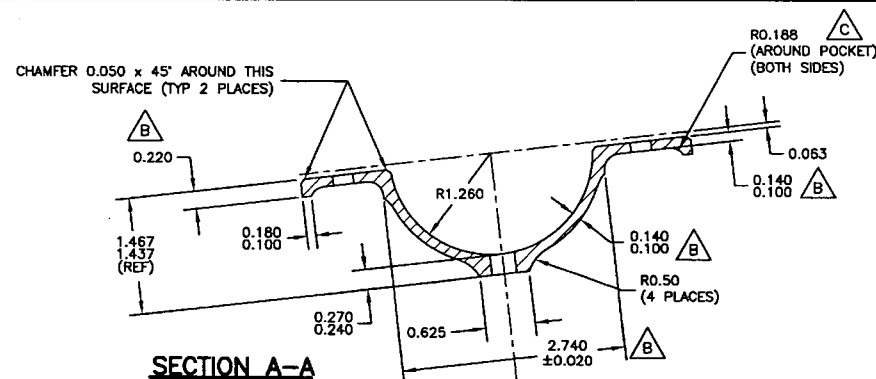
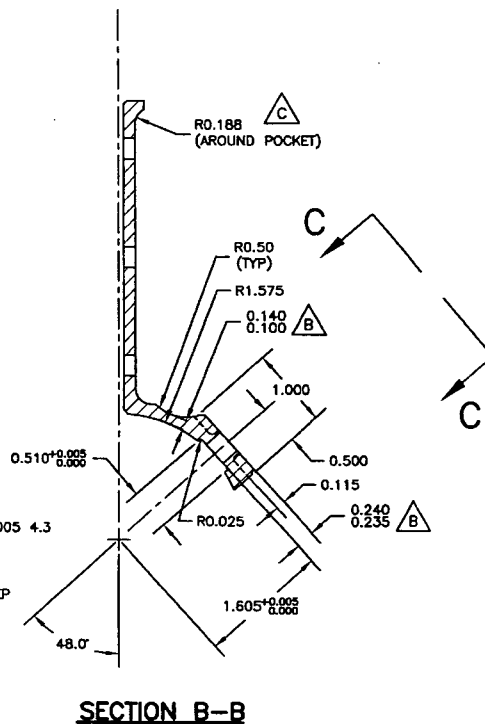
Audited by:	
Date:	

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Reformat; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B	KJ/RF	
C	07.03.21	Revised per drawing revision C	KJ/JLM	



D2939-1 LH SADDLE (SHOWN)
D2939-2 RH SADDLE (OPPOSITE)

- NOTES:**
- 1) MATERIAL: ALUMINUM 7075-T7351 (QQ-A-250/12)
(MAKE FROM D6101-001 SADDLE BILLET, 7075)
 - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
 - 3) BREAK ALL SHARP EDGES 0.010 TO 0.020
 - 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 5) ALL DIMENSIONS ARE INCHES
 - 6) ENGRAVE PART AND BATCH NUMBER IN THIS AREA 0.010 TO 0.015 DEEP



C	06.11.09	R0.188 WAS R0.30 TO R0.25
B	00.05.29	CHANGED DEOMETRY AND MATERIAL
A	99.11.12	NEW ISSUE
DESIGN	DRAWN BY	DART DART AEROSPACE USA, INC. BOLLEVILLE, WA
CHECKED	APPROVED	DRAWING NO. D2939
DATE	06.11.09	TITLE SADDLE INSIDE

COPYRIGHT © 1999 BY DART AEROSPACE USA, INC.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

REV. C
SHEET 1 OF 1
SCALE
2:3

SHOP COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 333601

01.02.12